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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/944,488 | 08/30/2001 | Warren M. Farnworth | 3996US (99-0254) | 1571 |
| 24247 | 7590 | 10/28/2004 | EXAMINER | |
| TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110 | | | LUK, EMMANUEL S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1722 | |

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,488

Applicant(s)

FARNWORTH, WARREN M.

Examiner

Emmanuel S. Luk

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 51-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 51-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rano, Jr. et al (5286426).

Rano teaches the claimed apparatus having a first platen (20) with a plurality of alignment elements projecting therefrom (24), the sets of alignment elements for engaging sets of alignment features of a like electronic component assembly and a second platen (22) having a plurality of spaced locations corresponding to the first platen (20), including sets of alignment receptacles (68). The alignment elements are pins (38).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 3 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rano, Jr. et al (5286426) as applied to claim 1, and further in view of Steijer et al (5985185).

Rano teaches the claimed apparatus having a first platen (20) with a plurality of alignment elements projecting therefrom (24), the sets of alignment elements for engaging sets of alignment features of a like electronic component assembly and a second platen (22) having a plurality of spaced locations corresponding to the first platen (20), including sets of alignment receptacles (68). The alignment are pins and there at least two alignment elements located adjacent each component cavity (Fig. 1).

Rano fails to teach at least two alignment elements located adjacent each component cavity, a clamping element and further subdivision of subcavities.

Steijer et al teaches the claimed apparatus having a first platen (1) with a plurality of alignment elements projecting therefrom (73, 85), the sets of alignment elements for engaging sets of alignment features of a like electronic component assembly and a second platen (17) having a plurality of spaced locations corresponding to the first platen (19), including sets of alignment receptacles (87). The alignment are pins and

there at least two alignment elements located adjacent each component cavity (Fig. 1). The first and second plates are releasably securable via clamping structure (Col. 9, lines 27-34 and 38-45). It would have been obvious to one of ordinary skill in the art to modify Rano with the alignment elements and clamping element as taught by Steijer because it allows for better alignment and thus improved molding by the apparatus.

In regards to the multiple subcavities, Rano teaches producing encapsulation of semiconductor members in a mold cavity between a first and second plate and it would have been obvious to one skilled in the art for modifying the apparatus with multiple cavities for a multiplied effect. *In re Harza*, 124 USPQ378 (CCPA 1960).

Allowable Subject Matter

6. Claims 17-31 and 51-66 are allowed.
7. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach a stereolithography machine having a first and second platen having sets of alignment elements and a plurality of cavities that engage the platen assembly support structure, the system further having a computer for and machine vision system for controlling the stereolithography system. In claim 51, the system enables inversion of the platen assembly via rotation about a horizontal axis. The closest prior art, Rano et al, Farnsworth et al, Steijer et al and Chang et al, fail to teach this arrangement of the platen structure located in a stereolithography apparatus.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments filed 7/26/04 have been fully considered but they are not persuasive. The applicant's argument concerning the 35 U.S.C. 102(b) rejection of claims 1, 2, 4 and 5 under Rano and the 35 U.S.C. 103(a) rejection of claims 3 and 6-16 have been considered but are not persuasive.

Rano does teach a first and second platen, regardless if it is called a base plate, the arguments with what the element is called diverts the attention that the plate is still a plate. The second part is the upwardly guide posts, these are alignment elements 'projecting therefrom'. Figure 2 is an excellent example of the posts that project from the plate. In essence, Rano discloses each and every element of claim 1. In regards to claims 4 and 5, Figure 1 shows the product formed by the apparatus, there are two elements made from the lead frames which leads to the inherent teachings by Rano that multiple elements are formed from the apparatus, thus a divider is in between thereby forming subcavities.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Here, the applicants have individually analyzed Steijer, however, it is in combination of Rano. Rano does teach the limitations of claim 1 and thus, the rejection of Rano in combination of Seijer fully teaches the claimed apparatus of claims 3 and 6-16. Applicants have not shown a reason why Steijer and Rano are not obvious for combination for a 35 U.S.C. 103(a) rejection of the claims. Thus, the rejection stands and the claims remain rejected.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571)

272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL


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